

Fairfax County's Solid Waste Management Plan

EXECUTIVE SUMMARY

The Virginia Department of Environmental Quality (VDEQ) requires that all jurisdictions, including Fairfax County, prepare a 20-year integrated solid waste management plan (SWMP) and submit it by July 1, 2004. This executive summary presents an overview of that plan.

The county has designed its future solid waste management (SWM) system founded on the following strategic goals:

1. To reduce the volume of the solid waste stream through the implementation of waste reduction and recycling programs.
2. To maintain a balanced SWM system which benefits the community while following regulatory requirements.
3. To provide efficient and economical refuse collection, recycling, and disposal services.
4. To provide facilities for the sanitary, efficient and economical reception and transportation of solid waste generated in Fairfax County.
5. To provide for the operation of sanitary waste disposal facilities, utilizing the most economically viable and environmentally acceptable methods available.
6. To provide regulatory oversight of the county's ordinances regarding solid waste.

County staff, working with stakeholders throughout the solid waste system, reviewed current waste activities and programs. After projecting the potential waste generation for the next 20 years, the county analyzed the waste management gaps between the current system and the future needs. The significant gaps identified are:

- The solid waste collection system is not currently unified; recyclables, waste collection services, and cost structures vary throughout the county
- Municipal Solid Waste (MSW) disposal must be provided; after 2011; the county's contract with the waste-to-energy facility, the Energy/Resource Recovery Facility (E/RRF), will expire.
- Construction and Demolition Debris (CDD) disposal capacity may be exhausted within seven years.
- Increased recycling will help reduce the burden on county transfer and disposal facilities.
- Programs for source reduction and reuse will help reduce the increasing amount of waste generated in the county.

Table ES-1 outlines Fairfax County's objectives and strategic vision for its integrated SWM system over the next 20 years. These strategies address the gaps identified in the system.

Figures ES-1, ES-2, and ES-3 illustrate the projected range of waste (i.e., MSW not including yard waste), CDD, and yard waste (respectively) in Fairfax County's SWM system over the next 20 years. These illustrate the projected ranges of waste generation, recycling, and disposal needed after implementing the county's future SWM system.

Figure ES-4 shows the projected range of waste processed by the E/RRF over the next 20 years; county MSW may fill the capacity of the E/RRF within 20 years.

Figure ES-5 shows the projected range of MSW recyclables handled by existing privately operated material recovery facilities (MRFs) in the county over the next 20 years. The county projects that MSW recyclable quantities may exceed the capacity of the existing MRFs after 10 years. If necessary, the county will support private efforts to increase the capacity of MRFs to handle recyclables generated in the county.

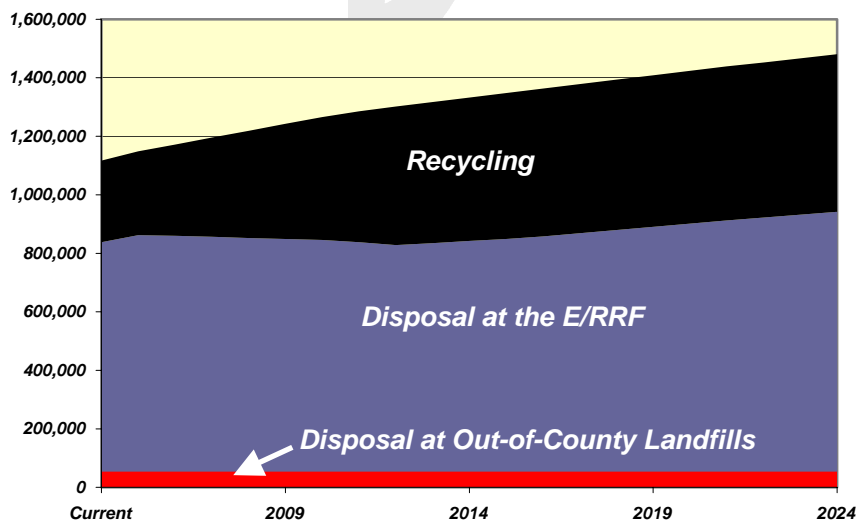
One the most significant change envisioned for the future involves the county overseeing residential collection to all county households. Fairfax County may consider implementing this alternative by awarding collection contracts to private haulers through a competitive bidding process. County oversight of residential collection services would improve customer service, provide standard levels of service to all residents, reduce truck traffic and air pollution, improve efficiency and effectiveness of the entire waste system, and cost residents about the same or less for the improved services.

Table ES-1. Fairfax County Solid Waste Management Objectives and Future System

	Solid Waste Management Objectives	Future Solid Waste Management System
Source Reduction and Reuse	<ul style="list-style-type: none"> Expand source reduction and reuse programs in Fairfax County to minimize waste generation. Increase public awareness to increase participation in source reduction and reuse initiatives Promote public/private partnerships to increase program efficiency and minimize county costs 	<p>Improve public outreach and education to promote source reduction and reuse</p> <p>Promote public/private source reduction and reuse programs</p> <p>Promote a residential yard waste composting and/or grasscycling program</p> <p>Develop a regional approach to CDD source reduction and reuse with the Metropolitan Washington Council of Governments (MWCOG) and others</p> <p>Implement county internal source reduction and reuse programs</p>
Recycling	<ul style="list-style-type: none"> Increase overall recycling quantities in Fairfax County to minimize waste disposal Expand type of materials collected and recycled to increase recycling quantities Revise county ordinances to support increased recycling Promote the provision of facilities for the sanitary, efficient and economical management of recyclables Promote public/private partnerships to increase program efficiency and minimize county costs Increase public awareness to increase participation in recycling initiatives 	<p>Promote public/private recycling programs</p> <p>Improve public outreach and education to promote recycling</p> <p>Increase business recycling by reducing commercial recycling thresholds</p> <p>Encourage increased CDD recycling by promoting CDD recycling at the I-66 Transfer Station (or other location)</p> <p>Revise regulations to enhance recycling, including:</p> <ul style="list-style-type: none"> Expand curbside recyclables collected to include mixed paper, plastic, and cardboard Revise county code to require CDD recycling and/or recycling plans Expand recyclables collected at government buildings Encourage increased MSW recycling in county schools Increase MSW recycling inspections <p>Address suitable recycling alternatives for existing multiunit buildings</p> <p>Continue current yard waste recycling system; contract with out-of-county composting facilities for dedicated capacity</p> <p>Explore additional waste exchange agreements to increase recycling</p> <p>Encourage VDOT to use recycled materials in road construction</p> <p>Support expansion of the capacity of existing MRFs, if quantities of recyclable materials warrants expansion</p> <p>Continue using the current special wastes management system</p>
Disposal	<ul style="list-style-type: none"> Provide for the operation of sanitary waste disposal facilities, utilizing the most economically viable and environmentally acceptable methods available 	<p>Continue using the current disposal system (as the preferred alternative)</p> <ul style="list-style-type: none"> E/RRF as the primary disposal facility with out-of-county landfills for overflow and emergencies CDD landfills both in- and out-of-county; contract with CDD landfills for dedicated disposal capacity <p>If negotiations with Covanta Fairfax, Inc. are unsuccessful, the county will use only out-of-county landfills for MSW disposal</p> <p>Foster a regional approach for CDD disposal</p> <p>Improve public outreach and education, specifically for CDD disposal issues</p>

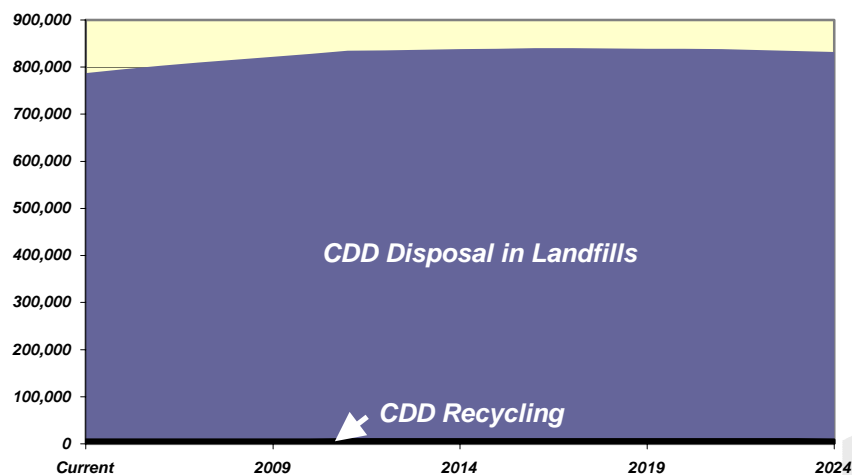
	Solid Waste Management Objectives	Future Solid Waste Management System
Collection	<ul style="list-style-type: none"> – Provide improved service levels at a reasonable price – Reduce collection truck traffic and its impacts on county air quality – Increase collection efficiency – Develop a homogeneous service level to support the promotion of unified recycling and collection messages 	<p>County oversees residential collection services through contracts with private companies</p> <p>Revise County Code to reflect residential service level changes and requirements</p> <p>Continue current yard waste collection system, encouraging private vacuumed leaf collection throughout the county</p> <p>Improve public outreach and education, specifically for education for CDD collection options</p> <p>Consider program to promote best management practices for CDD haulers</p> <p>Promote use of special fuels, filters, and special vehicles for collection</p> <p>Expand special wastes collection</p>
Transfer	<ul style="list-style-type: none"> – Provide disposal capacity for county generated waste at reasonable costs – Continue to accept solid wastes generated in the county at the I-66 Transfer Station or other location – Increase efficiency and safety by reconfiguring or constructing new waste handling areas 	<p>Continue using the current transfer system</p> <p>Reconfigure or construct waste handling areas at the I-66 Transfer Station, including:</p> <ul style="list-style-type: none"> – Unloading areas for citizens and commercial cash customers (for increased safety and efficiency) – Areas to handle increased CDD and/or yard waste – Recycling center for CDD, if needed, at a county location <p>Add transfer capabilities to the I-95 Landfill Complex, if increases in transfer quantities or waste exchange agreements require it</p> <p>Improve public outreach and education to maximize the best management of CDD</p>

Figure ES-1. Projected Quantities of MSW (Excluding Yard Waste) for the County Solid Waste Management System over the Next 20 Years (Tons)



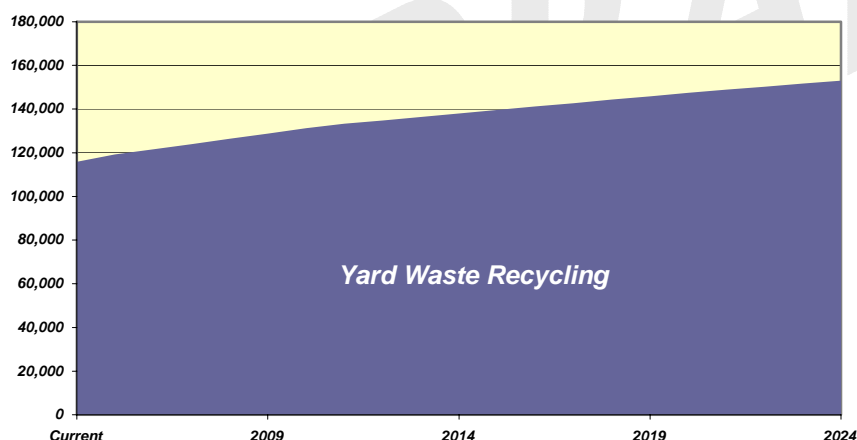
- Recycling quantities are projected to increase by 120,000 tons per year from implementation of SWMP actions
- The MSW collection system (excluding yard waste and special wastes) must handle an additional 139,000 to 500,000 tons per year by 2025.
- The I-66 Transfer Station must handle up to an additional 251,000 tons of MSW per year by 2025; existing capacity is sufficient
- MSW will not exceed the capacity of the E/RRF over the SWMP planning period

Figure ES-2. Projected Quantities of CDD for the County Solid Waste Management System over the Next 20 Years (Tons)



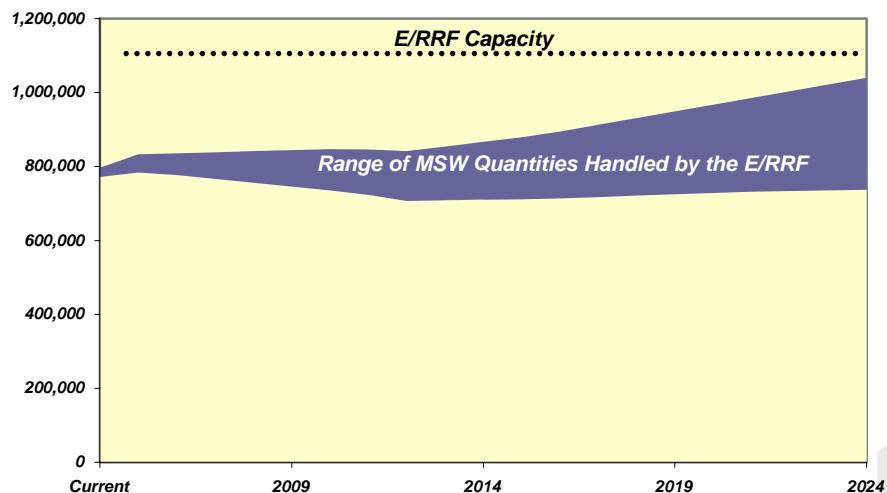
- The CDD collection system must handle up to an additional 133,000 tons per year by 2025.
- In-county CDD disposal capacity is projected to be exhausted in about 7-10 years.
- The I-66 Transfer Station has sufficient transfer capacity to handle the projected increased quantities of CDD managed by the county; CDD disposal capacity concerns may increase the quantities managed at the transfer station.
- Disposal capacity concerns may trigger the construction of a CDD recycling facility in the county.

Figure ES-3. Projected Quantities of Yard Waste for the County Solid Waste Management System over the Next 20 Years (Tons)



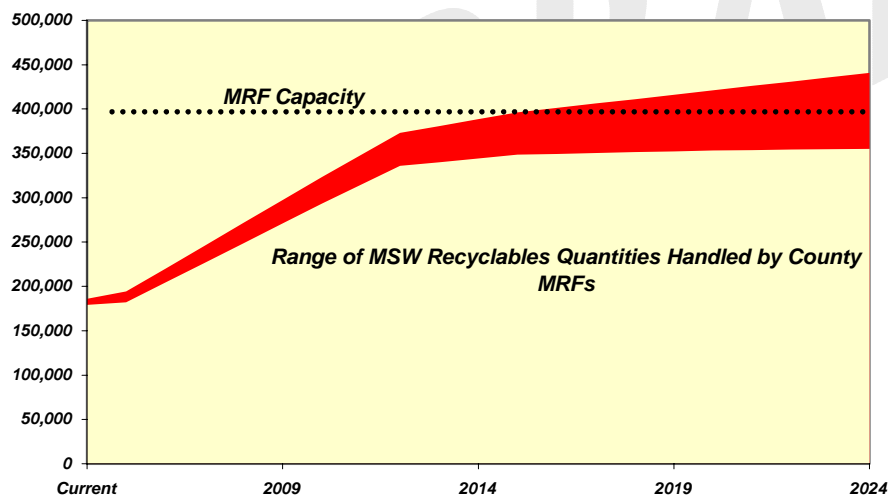
- Yard waste recycling will increase between 17,000 and 58,000 tons per year by 2025.
- Additional composting capacity will be needed; this capacity may be achieved through capacity contracts or new/enhanced waste exchange agreements with local jurisdictions.

Figure ES-4. Projected Quantities of MSW Refuse Handled by the Energy Resource Recover Facility over the Next 20 Years (Tons)



Fairfax County projects MSW disposal quantities will not exceed the capacity of the E/RRF by 2025

Figure ES-5. Projected Quantities of MSW Refuse Handled by the County Material Resource Recovery Facilities over the Next 20 Years (Tons)



Fairfax County projects MSW recyclable quantities may exceed the capacity of the existing privately operated material recovery facilities after 10 years